

DRILL HOLES

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BY: \$USERNAME\$

BORDER REV: DATE: Mon01/27/2007

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC CONTROL SIGNAL DUE TO CHANGES IN GEOMETRICS AT THE INTERSECTION OF MD 193 (UNIVERSITY BLVD) AND TAKOMA LANGLEY CROSSROADS TRANSIT CENTER (0.09 MILES WEST OF MD 650).

MD 193 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA 3 PHASE, FULL TRAFFIC ACTUATED MODE. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROPOSED FOR BUS TRAFFIC TRAVELLING EASTBOUND ON MD 193. AN ALL-RED ALTERNATIVE PHASE IS PROPOSED FOR PEDESTRIAN MOVEMENT ACROSS MD 193.

CONTROLLER REQUIREMENTS

EXISTING CABINET AND CONTROLLER WILL BE UTILIZED. INSTALLATION OF A TWO-WIRE CENTRAL CONTROL UNIT AND ASSOCIATED HARNESSES WILL BE REQUIRED.

SHA FORCES SHALL PERFORM ALL INTERNAL CABINET WIRING.

APS OPERATION

FOR MD 193 (UNIVERSITY BLVD.)

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS UNIVERSITY AT TRANSIT CENTER, WAIT"
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

FOR TRANSIT CENTER ENTRANCE

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS TRANSIT CENTER AT UNIVERSITY, WAIT"
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

THE CONTRACTOR SHALL CONTACT ED RODENHIZER AT THE SIGNAL SHOP 410-787-7650 TO DELIVER APS EQUIPMENT FOR TESTING.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Felecia Murphy
Assistant District Engineer - Traffic (Prince George's County)
Phone: 301-513-7404

Victor Grafton
District Utility Engineer
Phone: 301-513-7350

Vernon Stinnett
Assistant District Engineer - Maintenance
Phone: 301-513-7304

Duane Bernard
Assistant District Engineer - Construction
Phone: 301-513-7341

THE CONTACT PERSONS FOR OFFICE OF TRAFFIC AND SAFETY ARE AS FOLLOWS:

Mr. Edward Rodenhizer
SHA Signal Operations Manager
Phone: 410-787-7652

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

The Power Company Representative is:
Potomac Electric Power Company
8300 Old Marlboro Pike
Upper Marlboro, Maryland 20772
Phone: 301-961-5325

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
NONE	NONE	NONE

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

CONTRACT NO: T-1164-0140

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
203030	4 CY	TEST PIT EXCAVATION
585621	1020 LF	12" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585700	650 LF	REMOVAL OF EXISTING PERMENANT PAVEMENT LINE MARKINGS ANY WIDTH
800000	1 EA	2-WIRE CENTRAL CONTROL UNIT
800000	3 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	LUMP	REMOVE AND DISPOSE OF MATERIAL AND EQUIPMENT
800000	4 EA	VIDEO DETECTION CAMERA AND CABLE (ANY LENGTH)
801004	6 CY	CONCRETE FOR SIGNAL FOUNDATION
801106	32 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
801605	64 SF	SHEET ALUMINUM SIGNS
802145	3 EA	ADJUST HANDHOLE TO GRADE
802501	352 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805135	40 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805140	105 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805155	185 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
811001	5 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
818004	2 EA	10 FOOT BREAKAWAY PEDESTAL POLE
818030	1 EA	STEEL POLE WITH A SINGLE 38 FOOT MAST ARM
818036	1 EA	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM
831010	2 EA	250 WATT HIGH PRESSURE SODIUM LAMP & LUMINAIRE
837001	6 EA	GROUND ROD - 3/4 INCH DIA. X 10 FOOT LENGTH
860284	18 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	1506 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	961 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	995 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
865001	4 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON
866103	2 EA	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

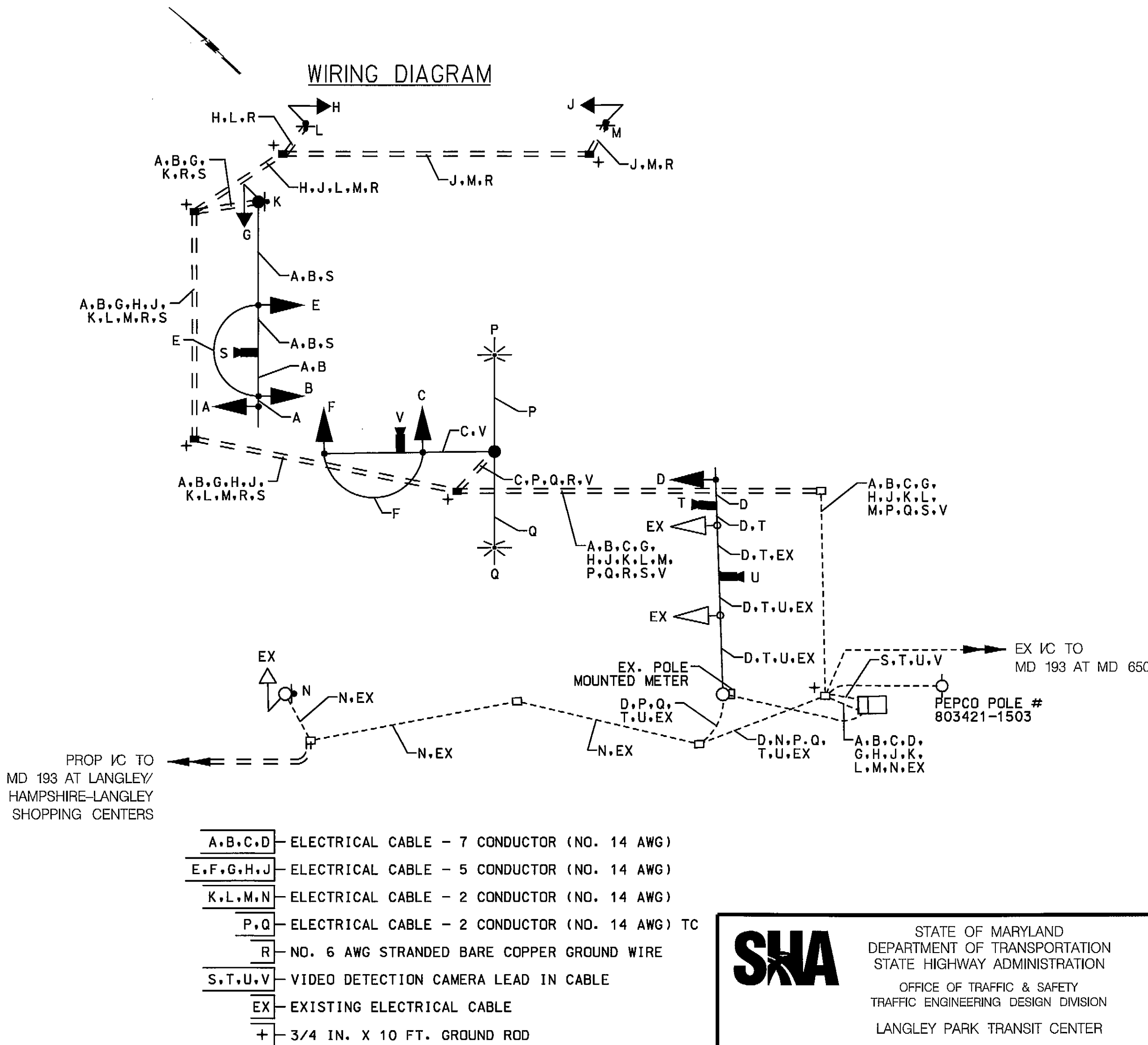
CATEGORY CODE NO.	QUANTITY	DESCRIPTION
NONE	NONE	NONE

ALL REMOVED MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR

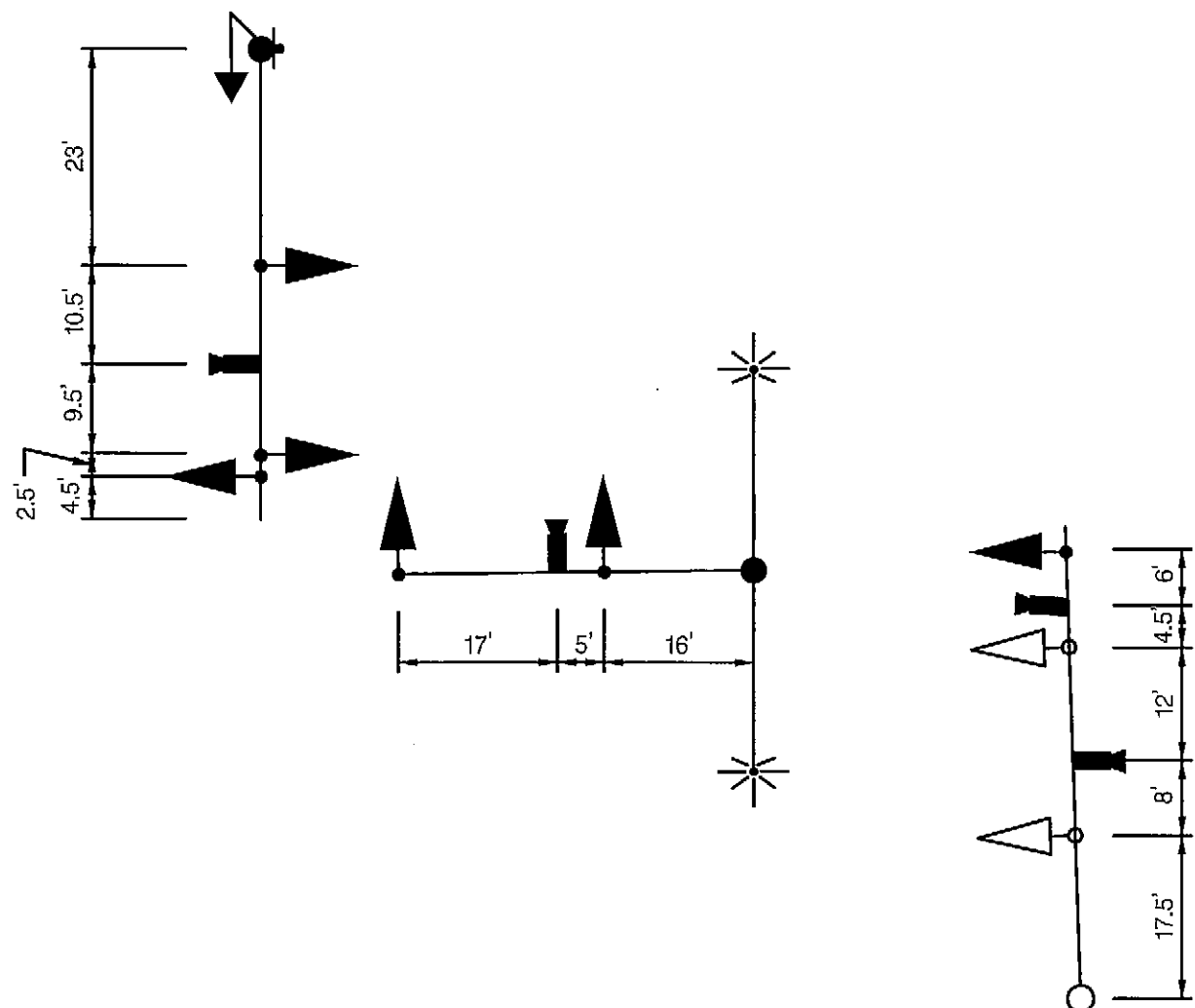
PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	
PHASE 1 + 6	←G→	←G→	G	G	R	R	→G←	→G←	DW	DW	DW	DW	
PHASE 1 CHANGE	←Y→	←Y→	G	G	R	R	→Y←	→Y←	DW	DW	DW	DW	
PHASE 2 + 8	FL/RA	FL/RA	G	G	G	G	FL/RA	FL/RA	WK	WK	DW	DW	
PED CLEARANCE	FL/RA	FL/RA	G	G	G	G	FL/RA	FL/RA	FL/DW	FL/DW	DW	DW	
PHASE 2 + 8 CHANGE	FL/RA	FL/RA	Y	Y	Y	Y	FL/RA	FL/RA	DW	DW	DW	DW	
PED PHASE	←R→	←R→	R	R	R	R	FL/RA	FL/RA	DW	DW	WK	WK	
PED CLEARANCE	←R→	←R→	R	R	R	R	FL/RA	FL/RA	DW	DW	FL/DW	FL/DW	
PED PHASE CHANGE	←R→	←R→	R	R	R	R	FL/RA	FL/RA	DW	DW	DW	DW	
FLASHING OPERATION	FL/RA	FL/RA	FL/Y	FL/Y	FL/Y	FL/Y	FL/RA	FL/RA	DARK	DARK	DARK	DARK	

WIRING DIAGRAM



SIGNAL LAYOUT DETAILS



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

11019 7/19/2012
License No. Expiration Date



RJM ENGINEERING, INC.
CONSULTING ENGINEERS
ELLICOTT CITY, MARYLAND



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
LANGLEY PARK TRANSIT CENTER
MD 193 AT TAKOMA LANGLEY CROSSROADS TRANSIT CENTER

GENERAL INFORMATION SHEET

SCALE: N.T.S. ADVERTISED DATE: APRIL 2012 CONTRACT NO. T-1164-0140

DESIGNED BY P.WESTCOTT COUNTY PRINCE GEORGE'S
DRAWN BY P.WESTCOTT LOGMILE 16019300.25
CHECKED BY J. PANNEE TIMS NO. K977
F.A.P. NO. SEE TITLE SHEET TOD NO.

TS NO. 615B DRAWING SG-04 OF 11 SHEET NO. 102 OF

PLOTTED: 8/24/2012
FILE: SFILES